

Agenda



- **Introduction** R. Schweiss
- **Design Overview** S. Johnston
- **Hardware Architecture** C. Brambora
- **Operational Scenarios** S. Johnston
- **Software Design**
 - Overview J. Hosler
 - Operations Interface J. Whelan
 - Management and Control A. Williard
 - Database A. Williard
 - L1 Processing T. Ulrich
 - Evaluation and Analysis J. Storey D. Kaufmann/M. Schienle
- **System Test** E. Crook
- **Conclusion** R. Schweiss



- **Functional Overview**

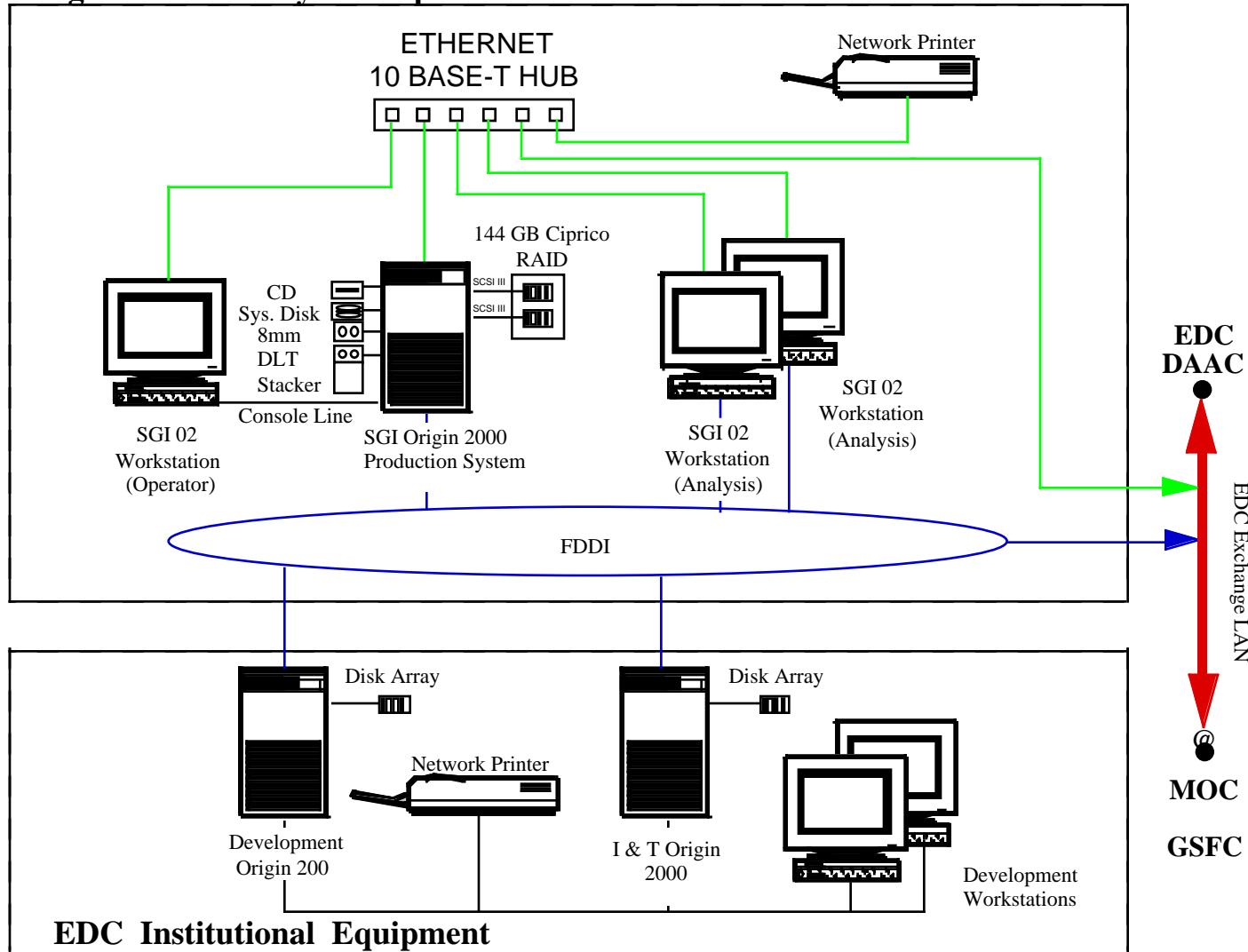
- IAS receives L0R data from EDC-DAAC
- IAS is required to process up to 10 scenes per day (500 MB/scene or 5 GB per day)
- A minimum of 130 GBytes of storage is provided to support processing and temporary L1R and L1G storage for analysis.
- Support Analysts' activities

IAS Critical Design Review

IAS Hardware Architecture



Image Assessment System Operational Hardware Architecture



IAS COMPONENTS



- **Silicon Graphics Inc. (SGI) Origin 2000 Rack Server**
 - **5.12 GBps Sustained I/O**
 - **4, 195 Mhz. R10000 processors w/ 4MB Cache (expandable to 16 processors within a rack)**
 - **9.1 GB System Disk**
 - **2 GB RAM (expandable to 32 GB within a rack)**
 - **Dual Attached FDDI (100 Mbps peak)**
 - **SCSI III interfaces (40 MBps peak)**
 - **10/100 BaseT Ethernet (Auto Sensing)**

IAS COMPONENTS



- **Silicon Graphics Inc. (SGI) O2 Workstations**
 - Single 150 MHz. R10000 processor
 - 4.0 GB System Disk
 - 64 MBytes RAM
 - Dual Attached FDDI (100 Mbps peak)
 - SCSI III interfaces (40 MBps peak)
 - 10/100 BaseT Ethernet
 - 20" Color Monitor



IAS COMPONENTS

- **Ciprico Disk Array Subsystem**
 - **72.8 GB total capacity**
 - **8+1 disk configuration (Hot Swap)**
 - **Redundant hot swap power supplies**
 - **Redundant Array of Independent Disks (RAID) level 3.**
 - **SCSI III interface (40 MBps peak)**
 - **2 units concatenated provide over 144 GB of contiguous disk space and 70 MBps sustained read and writes.**

IAS COMPONENTS



- **Boxhill Digital Linear Tape Drive (DLT) Mini Library (DLT 4700)**
 - **7 DLT Cartridge Capacity (Robotic loading)**
 - **20 GB capacity/tape (native)
40 GB capacity/tape (compressed)**
 - **Total capacity 140 GB native, 280 GB compressed**
 - **1.5 MBps Transfer rate (native)
3.0 MBps (compressed)**
 - **SCSI II interface (20 MBps peak)**